Women's experience of low back and/or pelvic pain (LBPP) during pregnancy

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Introduction

Low back pain (LBP) is typically experienced by over two thirds of pregnant women, around half suffer a combination of LBP and pelvic pain (PP) and almost one fifth suffer PP only (Liddle and Pennick, 2015; Bjorkland and Bergstom, 2000). Pregnancy-related low back and / or pelvic pain (LBPP) are frequently considered together due to a lack of consensus about whether they are one condition or two separate conditions (Liddle and Pennick, 2015). Pregnancy-related LBPP has been shown to have detrimental effects on women's lives affecting their ability to walk, work and sleep as well as potentially being a catalyst for depression (Mogren 2006, Van de Pol al., 2007; Dorheim et al., 2014). Despite its common occurrence and the significant effects this pain can have on pregnant women's lives, very little is known about women's actual experiences and few qualitative studies have addressed the topic (Shepard, 2005; Wellock and Cricton 2007a; Wellock and Crichton, 2007b; Persson et al., 2013; Elden et al., 2013; Elden et al.,2014).

In a grounded theory research study by Persson et al.(2013), key themes related to women's experiences of pelvic girdle pain (PGP) were described including 'being a burden' and 'living with enduring pain'. Women reported that their pain increased their dependence on others, requiring help with tasks like cooking, cleaning, and trips to doctors or midwives appointments. This increased dependence put relationships with their partners and family members under considerable stress. This study also found that women suffering from PGP had reduced enjoyment of their pregnancy.

A phenomenological qualitative study (Wellock and Crichton, 2007a) reported on pregnant women's experience of Symphysis Pubis Dysfunction (SPD), a specific

type of PP that often occurs during pregnancy. This study included 28 women complaining of SPD during their pregnancy and at six weeks postpartum. Several themes were identified, many of which were similar to those reported by Persson et al. (2013), such as feeling like a burden and living with severe pain. Other themes included ineffective pain relief from standard treatments. Elden and colleagues (2013) also explored the experiences of 27 pregnant women with PGP and revealed that the symptoms resulted in some women doubting their roles and identities as mothers, partners and professionals.

The available qualitative data on pregnancy-related LBPP focus specifically on women's experiences of PP during pregnancy. However, of the qualitative studies published on PP in the past five years, all have been conducted in Scandinavian countries, which are credited with having a particularly high level awareness of PP during pregnancy by both the public and health professionals. Therefore, the experiences of pelvic pain and treatment reported in these recent studies may differ significantly to countries with less awareness of pelvic pain (Kankaris et al., 2011). Furthermore, there is a distinct absence of qualitative research into women's experiences of low back pain and mixed low back and pelvic pain during pregnancy, despite the greater prevalence of these conditions (Bjorkland and Bergstom, 2000; Liddle and Pennick, 2015). It is possible that previous qualitative studies may have focused on PP as it has been previously reported to be more painful and disabling than low back pain during pregnancy (Ostagaard et al., 1996; Katonis et al., 2011). However, a recent survey by Sinclair et al. (2014) discovered that the intensity of low back and pelvic pain during pregnancy were of relatively similar intensity on a self-report numerical rating scale; mean PP score was 7.62 / 10 compared to LBP which was 6.43 / 10, which lends support to exploring the experience of low back pain during pregnancy.

Gaining a further insight into women's experiences of pregnancy-related LBPP, particularly LBP and mixed LBP and PP is critical to help maternity health care professionals provide the best possible care and support for these conditions. This is particularly important given the extremely frequent occurrence of these conditions, the current lack of research in the area and the high levels of pain these

conditions can cause. Better understanding of pregnancy-related LBPP may lead to the development of better care and support strategies for these common pregnancy complaints. This study aimed to explore women's experiences of pregnancy related LBPP. The research questions for this study were:

1) How do women experience pregnancy- related LBPP?

2) How do women manage pregnancy-related LBPP?

3) How do women experience routine treatment and advice for pregnancy-related LBPP?

Methods

Design

A qualitative design, employing the use of focus groups.

Setting and participants

Focus groups were conducted in an urban maternity hospital. Participants were self-selecting women who had recently taken part in "The CAM in Pregnancy Trial" (ISRCTN26607527) a pilot randomised controlled trial investigating the effectiveness of reflexology for managing pregnancy-related low back and / or pelvic pain (LBPP) who were recruited through ante-natal clinics. This trial involved the randomisation of 90 pregnant women (26-29 weeks gestation) into three groups of 30, where women were randomly assigned to receive either six weeks of reflexology treatments, six weeks of footbath treatments or usual antenatal care only. Full details of "The CAM in Pregnancy Trial" and findings are reported elsewhere (Close et al.,2015). All women were made aware, at the time of consenting to "The CAM in Pregnancy Trial", that if they completed the trial they would be invited to participate in a focus group exploring their experiences of pregnancy-related LBPP after they had participated in the trial. Invitations to participate in the focus group were sent by email to women (64) who had completed the trial. The invite to the focus groups offered women the choice of three, pre-determined dates for attendance. Women were included in the focus

groups if they had completed the trial, suffered pregnancy-related LBPP and were willing to participate.

Sample size determination

It is normal practice for focus groups to have between four to eight and ideally no more than 10 participants, as a larger group limits each person's capacity to discuss their experiences (Kitzinger, 2005; Kruger and Casey, 2009). Focus groups were conducted until data saturation, which was considered to be the point at which no new information was being reported by focus group participants.

Data collection

Each focus group was moderated by a qualified midwife with experience in qualitative research, using a pre-determined schedule of questions. Notes (i.e. nonverbal communication) were made by a note taker and added to the transcripts. Questions primarily explored women's experiences of pregnancy-related LBPP and their management of this pain, along with additional questions about women's experiences of participating in The CAM in Pregnancy Trial. The findings in relation to women's experiences of "The CAM in Pregnancy Trial" are reported elsewhere (Close et al.,2015).A full list of the questions used during the focus groups is provided in Table 1. The accuracy and completeness of the data was ensured by recording each focus group with the use of a digital audio recorder.

Table 1: Schedule of questions asked at focus group

Question number	Question asked
1	Describe how low back and / or pelvic pain affected your life during pregnancy.
2	Tell me about any treatments you used yourself to manage your low back and / or pelvic pain during pregnancy.

3	Describe the treatments you received for your low back and / or pelvic pain during pregnancy as part of your routine maternity care, e.g. midwife, GP, hospital.
4	How do you feel about the treatment(s) you received for low back and / or pelvic pain as part of your routine maternity care?
5	How was your experience of being part “The CAM in Pregnancy Trial “?
6	Describe any positive aspects of taking part “The CAM in Pregnancy Trial”.
7	Describe any negative aspects of taking part in “The CAM in Pregnancy Trial”.
8	Tell me about any improvements you think would be needed to make “The CAM in Pregnancy Trial” better.

Ethical considerations

Ethical approval was obtained in July 2012 from The Office of Research Ethics Committees Northern Ireland (12/NI/0052) as part of the protocol for “The CAM in Pregnancy Trial”. A participant information sheet and consent form was provided to eligible women who were subsequently given two weeks to respond to the invitation. Written consent was obtained by all focus group participants prior to any questions being asked or conversations being recorded. Women were asked for their consent to permit the research team to use their comments anonymously in the dissemination of the study findings.

Data analysis and rigor

Recordings were then transcribed verbatim and checked against the original audio recording. Focus groups were analysed using thematic analysis with the purpose of identifying themes and patterns. The Newell and Burnard (2006) framework was used to guide the analysis. Ensuring the rigor of qualitative research is very important if it is to be considered credible and as such many of the strategies recommended by Creswell and Miller (2000) for enhancing the rigor of qualitative studies were employed in this present study. This included member checking, completing a detailed audit trial, peer debriefing and spending a prolonged time in the field of pregnancy-back and pelvic pain.

Findings

Focus group participants

A total of 14 women attended three focus groups. Six women attended focus group one, and four women attended focus group two and three respectively. The mean age of women was 33 years (age range 26-36 years) and most had a combination of LBP and PP (8/14). Five out of 14 had LBP only and one had PP only. Twelve women had already given birth (between 6 weeks and 9 months previously) and two were still pregnant at 36 weeks' gestation. The mean intensity of participants' pain was calculated from the data they provided in The CAM in pregnancy trial and this was 6.03 / 10 on the ten point visual analogue scale. The age and the clinical condition experienced by each participant is provided in Table 2.

Table 2: Age and clinical conditions of each focus group participant

Participant number	Age (years)	Clinical condition
1	35	Low back pain
2	32	Low back and pelvic pain
3	34	Low back and pelvic pain
4	30	Low back pain
5	26	Low back and pelvic pain
6	34	Low back pain
7	32	Pelvic pain
8	35	Low back and pelvic pain
9	35	Low back pain
10	34	Low back and pelvic pain
11	36	Low back and pelvic pain
12	30	Low back and pelvic pain
13	27	Low back pain
14	30	Low back and pelvic pain

Themes

Three major themes in relation to women's experience of LBPP during pregnancy became clear on examining and coding the focus group data. Sub-themes appeared within each theme (Table 3).

Table 3: Categorisation of themes describing women's experience of pregnancy-related LBPP.

Main themes	Sub-themes
1.The physical and emotional impact that pregnancy-related LBPP has on women's lives	• Struggling with everyday life • Women's description of pregnancy –related LBPP • The emotional impact of pregnancy-related LBPP
2. Attitudes and knowledge towards pregnancy-related LBPP	• Lack of awareness of pelvic pain in pregnancy • Perceived normality of low back pain
3. Women's use of treatments to manage pregnancy-related LBPP and dissatisfaction with standard advice and treatment	• Self-management • Lack of disclosure of LBPP to a health care professional • Experience of standard treatments for pregnancy-related LBPP • Limited advice and support from health care professionals

Theme 1: The physical and emotional impact that pregnancy-related LBPP has on women's lives

When women were questioned about their experiences of pregnancy-related LBPP, a key theme that emerged throughout was 'the physical and emotional

impact that pregnancy-related LBPP has on daily life. Three sub themes were identified under this main theme ‘struggling with daily life’, ‘Women’s description of pregnancy-related LBPP’ and ‘the emotional impact of pregnancy-LBPP’.

Struggling with daily life

Most of the participants identified significant struggles with everyday life while suffering pregnancy- related LBPP. Women described in detail the physical struggles they experienced due to their pregnancy-LBPP. Walking was a significant problem:

“It got to the stage I had problems walking and getting out of bed...,”
Participant 2

“I had one really bad day where I seized up in Tesco’s pushing a trolley and I wasn’t able to take another step and had to phone for help…,”
Participant 7

Two women reported that their pain affected their ability to walk so badly that they had to use crutches:

“I had pelvic girdle pain…I was on crutches and had a physio…”
Participant 5

“I was on crutches for the last four months …”
Participant 12

Disturbed sleep was another problem which many of the women reported:

“I had to sleep with a pillow between my legs …I still sleep with a pillow between my legs...then you move over to the other side…you found you never got a good sleep then”

Participant 8

“When you are sleeping and the body totally relaxes that seems to be the absolute worst…and at some point it would wake me…wake me out of my sleep,”

Participant 7

Pregnancy -related LBPP affected several women’s working ability. One woman, who had a desk-based occupation, described how it was uncomfortable to sit for long periods of time. Another woman mentioned how she finished work early due to her pain:

“ It was uncomfortable that I couldn’t sit for long periods of time especially when I was working and near the latter stages of pregnancy, I would find sitting very uncomfortable because of my job, it’s the kind where I am sitting at a desk…”

Participant 8

“They were going to give me crutches but I just went off work,”

Participant 2

Women’s descriptions of pregnancy-related LBPP

Some of the women experienced significant pain during their pregnancy. These women described their pain vividly during the course of the focus group discussions:

“It was excruciatingly sore at night…”

Participant 7

“It was horrific…”

Participant 3

The emotional impact of pregnancy-related LBPP

For some women LBPP during pregnancy affected them emotional, for a few women it affected their mood, and for others it created worry in relation to their ability to give birth in the presence of pregnancy-related LBPP and concern about issues experienced with not been able to move as normal:

“I felt rotten all the time,”

Participant 12

“I had pelvic pain as well and a bit like yourself I was worried about how this baby was going to come out,”

Participant 3

“There was the worry of not being able to deliver the baby,”

Participant 2

“It was scary not being able to walk properly,”

Participant 2

Theme 2: Attitudes and knowledge towards pregnancy-related LBPP

Lack of awareness of pelvic pain

While discussing the experience of pregnancy-related LBPP it became clear that there was a significant lack of awareness about pelvic pain, and for some the experience of pelvic pain came as a surprise:

“Pelvic pain people weren’t as aware of it… I think it is frightening not being able to get out of bed and walk right...”

Participant 2

“I have never heard of it before I had no idea you could have that amount of pain,”
Participant 12

Contrary to women’s lack of awareness of PP during pregnancy, women reported an attitude of normality towards low back pain during pregnancy, and for some there was the expectation that they would experience LBP during the course of their pregnancy:

“I expected to have back pain…I heard so much about back pain because of the weight bearing thing,”
Participant 7

“I would put it down to one of those natural side effects of pregnancy with heartburn and all those other kinds of symptoms that you would have...I just put it down to one of those things that may well happen…I think it would be natural enough in pregnancy,”
Participant 10

Theme 3: Women’s use of treatments to manage pregnancy-related LBPP and dissatisfaction with standard advice and treatment
One of the other key themes that emerged from the discussions was how women managed their symptoms. Women discussed, in great depth, the self - management strategies they used to manage pregnancy-related LBPP as well as the treatment provided by health care professionals.

Self-management

Many of the participants were against or afraid of using medication to manage their symptoms and, as a result, avoided its use during the course of their pregnancy:

“I had a miscarriage before I had XXXXX and I didn’t want to take any additional medication in case it had an effect. “

Participant 3

“ *I didn’t want to take any pain relief or…pain killers during the pregnancy I was very particular about it.”*

Participant 7

Although most women were opposed to taking medication, there were a few that reported using ‘pain killers’. Of particular concern was the type of medication used. One woman reported using voltarol that she had previously been prescribed by the doctor:

“I would have used voltarol gel on my back which I got from my doctor when I had back pain before I was pregnant:

Participant 8

One self-management strategy that was particularly popular among participants was taking a bath:

“Well I would take a bath regularly…so that was the first thing I wanted to do when I had a sore back. I was straight to the bath…, “

Participant 10

“I would have used a hot water bottle and had a bath every night…yeh I lived in the bath…,”

Participant 12

Another strategy was exercise or keeping active:

“I walked the dog everyday right up until the day I gave birth...I found that really helpful. “

Participant 7

“Swimming was the only thing that really relieved it.”

Participant 11

Lack of disclosure of pregnancy-related LBPP to a health care professional

Women reported how they had failed to mention or discuss their pregnancy-related LBPP with a health care professional:

“I never really mentioned it (LBP) much to the Doctor...,”

Participant 1

“I didn’t attend the GP for anything ...I was GP led as well ...I didn’t really ask him for help about it (LBP & PP).”

Participant 8

Experience of standard treatments of pregnancy-related LBPP

Women discussed several issues they had with standard care methods of treatment for pregnancy-related LBPP like physiotherapy and pelvic belts:

“I tried to wear a strap kind of thing for my bump but I couldn’t wear it ...because it was too sore.”

Participant 12

“I was going to physio in the city and although the physiotherapist was brilliant. I wasn’t getting any relief.”

Participant 3

" To be honest I was much sorer two to three days after attending my physio …my one physiotherapy session so I didn't…I chose not to go back and stuck with the stuff I was doing, "

Participant 7

"I would pay for physio too because I didn't get it quick enough."

Participant 2

Limited advice and support from health care professionals

Many of the women reported receiving limited help from their maternity caregivers for managing their symptoms:

"She (The Midwife) said that it was more common than people realise and that if it gets that you can't bear it you can be referred to physio...but that would have to be done by my GP…but there was no more information given at that point."

Participant 7

"The midwives weren't able to offer any help,"

Participant 11

"The advice I got was very much like…it's part of pregnancy...just get on with it…there is paracetamol…if you feel you can move with it keep moving, so it (the advice) wasn't anything special…,"

Participant 14

Discussion

To our knowledge the present study is the first to explore women's experiences of low back pain and mixed low back and pelvic pain, providing a unique contribution

to knowledge in the area. This new knowledge is particularly important as LBP and mixed low back and PP are conditions that most pregnant women experience at some stage during their pregnancy and generally are more common than PP in isolation. The more frequent occurrence of these conditions is well documented in the literature (Bjorkland and Bergstom, 2000; Liddle and Pennick, 2015).

Women participating in the focus groups were all very vocal about their experiences of pregnancy-LBPP, with some reporting that they hoped that their participation may help improve awareness and treatment for this pain. The average pain levels reported by women in the focus groups were classified as moderate at 6 / 10 on VAS. Pain of this level may be more than the expected level of discomfort that women may experience during pregnancy, as their body adapts to accommodate the growing foetus.

Our findings support the notion that LBPP is a complex and painful condition, which was demonstrated by the theme “the physical and emotional impact of pregnancy-related LBPP”. The pain levels reported by women in this study were considerable and the words women used to describe their pain, such as “horrific” clearly emphasise their suffering. Disturbed sleep was frequently reported by women as one of the many effects on their daily lives, which concurs with the existing evidence (Fast et al.,1987; Olsson and Nilsson-Wikmar, 2004; Robinson et al., 2006; Skaggs et al., 2007). Sleep disturbance and abnormal sleep during pregnancy may have health consequences for both mother and baby. Research has suggested that women who have an abnormal sleep pattern in late pregnancy show more depressive symptoms in the early postnatal phase and have an increased risk of caesarean section, pre-eclampsia and longer labour times (Elkholm, 1992; Edwards et al.,2000; Lee and Gay, 2004; Chang et al.,2010). Therefore, pregnant women with LBPP should be asked about their sleep patterns and given advice and supportive strategies to improve their sleep.

Some of the women reported not being able to sit for long periods of time in their office-based job, which subsequently led to them taking sick leave. The impact of

being unable to fulfil usual work roles can be considerable. Elden et al.(2013) reported pregnant women with PGP felt defeated in their inability to meet their own high standards of work and that those taking sick leave discussed how being at home made them feel depressed.

In this present study the physical effects of pregnancy-related LBPP were profound but the emotional effects were most distressing. Women expressed feelings of fear at not being able to walk properly and a growing fear about giving birth with the additional pain in their low back and / or pelvis, a finding also noted by Shepherd (2005). Fear and concerns about giving birth in the presence of LBPP is becoming a more significant issue with a growing trend among pregnant women with pregnancy-related LBPP requesting an elective caesarean section or early induction (Vermani et al., 2010).

Women's vivid descriptions of pain, along with the feelings they reported about how their LBPP made them feel during pregnancy, suggest that some pregnant women with LBPP may have not been able to fully enjoy their pregnancy. The emotional impact of LBPP during pregnancy was particularly evident in one of the focus groups when one of the participants broke down in tears after suffering flashbacks of the pain she had experienced. This woman was able to receive expert support from "The Birth Afterthoughts Service", a specialised counselling service for women who had a distressing pregnancy or birth experience. This service is offered within the maternity hospital (where the focus groups took place), but not all women with similar experiences will get access to such help or support, especially if they do not report their experience to their midwife or consultant, something which our study indicated that some women may not do.

It is possible that high pain levels during pregnancy may lead to antenatal, postpartum depression or both. A qualitative study on women's experiences of SPD found that five out of nine participants suffered antenatal or postpartum depression (Shepherd, 2005). Furthermore, in another qualitative study involving 28 women with SPD, one woman reported that she was going to take her own life

as she could no longer bear the pain, and another threatened self-harm unless doctors ended her pain by performing a caesarean section (Wellock and Crichton, 2007a). High levels of LBPP during pregnancy may also increase the likelihood of postpartum depression. Gutke et al. (2007) reported a threefold increase in the occurrence of postpartum depression in women who suffered pregnancy-related LBPP compared to those who had not. The findings from the present study and that of other studies suggest that pregnant women with LBPP may be at risk of depression. Postpartum depression can have significant effects on the health and development of infants. It has been found to play a role in feeding practices, with those women experiencing high levels of postpartum depression more likely to discontinue breastfeeding, more likely to encounter problems with breastfeeding, and to be less satisfied with their breastfeeding experience (Dennis and McQueen, 2007). Studies that have examined infants of mothers who suffered postpartum depression have shown that these infants in general have poorer cognitive and emotional development (Teti et al., 1995; Grace et al., 2003).

Women reported quite differing attitudes and knowledge towards low back and pelvic pain, with a distinct attitude of normality towards experiencing LBP during pregnancy compared to very limited knowledge of PP. A qualitative study by Elden et al. (2014) reported a lack of awareness of PGP during pregnancy, which would suggest that there is a patient education gap in maternity care which needs to be addressed. The findings from this present qualitative study indicate a need for lay information to be made available for pregnant women with LBPP, as previously reported by Shepherd (2005) and Elden et al.(2014). A booklet or leaflet would have been helpful for the women but none of the women in the present study reported receiving any written information about managing pregnancy-related LBPP. Research on LBPP during pregnancy has reported wide variations in the provision and content of educational materials (Foster, 2013). Women's lack of awareness of PP during pregnancy and the apparent poor provision of lay information suggest the need for health services to ensure the availability of a standardised booklet or leaflet containing relevant information and advice on PP, which should be distributed early in pregnancy. A

booklet or leaflet of this nature should also contain information on LBP as these two conditions frequently occur together and are difficult to distinguish between.

Most women in the focus groups reported that they felt that LBP was considered a 'normal part of pregnancy'. In a cross-sectional survey, Pierce et al. (2012) also reported an 'attitude of normality towards LBP during pregnancy', describing how 70% of pregnant women stated that they expected to get LBP during pregnancy. An attitude of normality towards LBP during pregnancy may have significant implications; these include a lack of disclosure of the pain to health care professionals, resulting in the use of unsafe management strategies, or pregnant women dismissing LBP as part of the pregnancy experience, when in fact it may be a symptom of a urinary tract infection (UTI), which can cause pregnancy complications. Pregnant women should be encouraged to disclose LBPP to their health care professionals, who will be able to determine if the pain is the result of natural bodily changes or due to a more sinister cause. Moving women away from the attitude of LBPP during pregnancy being normal may increase the pregnant women's disclosure of LBPP to health care professionals which may help ensure that women are using safe management strategies for their symptoms.

The final theme, "women's use of treatments to manage pregnancy-related LBPP and dissatisfaction with standard advice and treatment", revealed that women received limited advice and support from health care professionals, which has also been reported in other qualitative studies (Wellock and Crichton, 2007b; Elden et al., 2014; Sinclair et al., 2014). These studies reported health professionals as being 'dismissive, uninformative and lacking knowledge about LBPP during pregnancy, resulting in many women feeling unsupported and left to do their own research on the condition. A lack of sufficient advice and support from health care professionals may have a knock-on effect, resulting in pregnant women using self-prescribed pain medications. Further to this, a lack of individually tailored, evidence-informed advice may precipitate psychological distress, which can affect the foetus (Sandman et al., 2006; Diego et al., 2006; Wellock and Crichton, 2007a; Vianna et al., 2011; Sinclair et al., 2014; Elden et al., 2014).

Limited advice and support from health care professionals to women with pregnancy-related LBPP is likely due to the fact that maternity health professionals only have a self-acquired knowledge of the condition (Pierce et al.2012). Many midwives are not specifically trained in managing LBPP and might therefore naturally find it difficult to provide the necessary evidence-informed guidance. Candlier et al.(2011) suggests the reason why women receive sub-optimal care for PGP during pregnancy is due to a lack of awareness from health care professionals on the most appropriate treatment methods, potentially leading to delays in assessing timely treatment.

Women in the focus groups reported a level of dissatisfaction with treatment methods that form standard antenatal care for LBPP in the National Health Service. Women's dissatisfaction with physiotherapy for pregnancy-related LBPP was related to the time and effort required to obtain a physiotherapy appointment and subsequent exacerbations of LBPP following physiotherapy. Interestingly, these issues have previously been reported in the literature, but it appears that little is being done to address the problem (Wellock and Crichton, 2007b; Sinclair et al., 2014). The present findings on experiences of physiotherapy for LBPP during pregnancy, along with the previous literature, suggest the need for more timely referrals to physiotherapy and more tailor made physiotherapy interventions.

It appeared that self-management, was an important part of managing pregnancy-related LBPP. Women discussed various self-management strategies for managing their symptoms, most of which were safe to use, such as walking and taking baths. However, one woman did discuss the use of self-prescribed pain medication, i.e. voltarol gel. Voltarol gel is a Non-Steroidal Anti-Inflammatory Drug (NSAID) which is contraindicated in the final trimester of pregnancy and only recommended for use in pregnant women, in the first and second trimesters, under a doctor's recommendations. Other studies have drawn attention to a range of issues related to the use of pain medications for LBPP during pregnancy, which included using contraindicated pain medications, the self-prescription of pain medications and taking more than the recommended dose of pain medications (Wellock and Crichton, 2007a; Sinclair et al., 2014). In light of the comments from women taking part in this

study and the findings of other published studies, which raise safety concerns relating to the use of pain medications in women with LBPP during pregnancy, it is important that health care professionals initiate dialogue about pain medications for LBPP to pregnant women.

Even though a few women did discuss the use of pain medications for LBPP in the focus groups, many women exhibited preferences for not using medications during their pregnancy. Wang et al.(2005) explored pregnant women's preferences for back pain medication during pregnancy, and less than one quarter indicated that they would be willing to take medications for their symptoms. While most pregnant women with LBPP may prefer not to use medications, some women may use them in desperation, particularly when non-pharmacological methods prove ineffective. Therefore, it is important to research non-pharmacological methods of pain relief to determine their efficacy and effectiveness.

Limitations

The primary limitation of this study was that the findings may not be generalisable to all women who experience pregnancy-related LBPP. It is possible that women participating in focus groups may have had an unusually painful or debilitating experience of pregnancy-related LBPP and, as such, they may have been more likely to volunteer to participate in the focus group in order to share their experiences, compared to those with mild pain or discomfort.

Conclusion

The findings of this study provide new knowledge on women's experiences of pregnancy-related LBPP. It is evident that LBPP during pregnancy affects women in many ways, both physically in terms of walking, sleeping and work ability; and emotionally affecting mood and eliciting additional worry around giving birth. There is variation in women's attitudes towards and knowledge about pregnancy-related LBPP. Women's dissatisfaction with standard treatments and health professional advice is a cause for concern, and may indicate there may be merit in considering trialling new methods of advising and treating women with pregnancy-related LBPP.

Furthermore, women's use of medications for pregnancy-related LBPP may be worth further exploration, as it was alarming to discover that women may be using medications for their pain, which are known to pose a risk to the health of the developing foetus.

Implications for practice

Health care professionals should initiate conversations about pregnancy-related LBPP early in pregnancy to educate women about the possibility of developing symptoms. Pregnant women need to be encouraged to disclose their LBPP, so that health care professionals can educate them on safe management strategies or refer them for more specialist treatment if required. It may be helpful for health professionals to receive specific training on pregnancy-related LBPP and the range of treatments available that include; self-management care, expert physiotherapy, complementary therapy and medication. Such training may help health care professionals provide improved advice and support to pregnant women with LBPP.

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